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Think Global, Invest Responsible: Why the Private Equity Industry Goes Green*

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Abstract

The growth of socially responsible investment on public financial markets has drawn considerable academic attention over the last decade. Discarding from previous literature, this paper sets up to analyze the Private Equity channel, which is shown to have the potentiality to foster sustainable practices in unlisted companies. The fast integration of the Environmental, Social and Governance issues by mainstream Private Equity investors is unveiled and appears to have benefited from the maturation of socially responsible investment on public financial markets and the impetus of large conventional actors. Hypothesis on the characteristics and drivers of this movement are proposed and tested on a unique database covering the French Private Equity industry in 2011. Empirical findings support that Private Equity responsible investing is characterized by shareholder activism and strategically driven by a need for new value creation sources, increased risk management and differentiation. In particular, results show that independent funds, which need to attract investors, are more likely than captive funds to develop responsible practices. Evolution of the movement and future research paths are proposed.

Key Words: Corporate Finance; Corporate Social Responsibility; France; Multi-factorial Analysis; Private Equity; Shareholder Activism; Socially Responsible Investment; Strategy.

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1. INTRODUCTION

Socially Responsible Investment (SRI) is an investment process that integrates social, environmental, and ethical considerations into investment decision making (Renneboog et al., 2008). As such, it differs from conventional investments in a twofold way. First, socially responsible investors apply a set of investment screens to select or exclude assets based on non-financial criteria, in addition to financial criteria. Second, those investors often engage in shareholder activism to foster Corporate Social Responsibility (CSR) strategies in the firms they own. Over the last decade, the SRI market has kept expanding, reaching in 2010 about 3 070 billion USD in the United States, representing 12.2% of assets under management (Social Investment Forum, 2010) and 3 800 billion EUR in Europe in 2010 (Eurosif, 2010). SRI markets are also expanding in Canada (EIA, 2005), Australia (SIO, 2004) and Asia (ASRIA, 2011).

Consequently, SRI structure, performance and evolution triggered research in management, economics and finance fields. However, most academic work focuses on SRI provided on public financial markets. The potential impact of the Private Equity channel on a firm's non financial policies and performance has received less attention (Scholtens, 2006; Cumming and Johan, 2007), partly because it is still at its early steps. Discarding from previous literature, this paper unveils responsible investment practices among Private Equity investors and their specificities compared to both standard Private Equity and public markets' SRI. Light is shed on their surprisingly fast integration of Environment, Social and Governance (ESG) criteria and drivers of this movement are empirically analyzed in the French context.

Here, the term "Private Equity" industry refers to specialized investment firms whose business is to invest in unlisted companies, thus encompassing both venture capital and buyouts. On a theoretical level, Private Equity has been identified as highly efficient at maximizing shareholders' value by reducing agency costs and providing strong incentive to management (e.g. Jensen 1986, 1989; Kaplan and Strömberg, 2009). As such, combining extra-financial and financial consideration through corporate social responsibility does not appear in direct line with Private Equity investors' practices as it would amount to spend cash flows to provide public good. In fact, on an empirical level, the phenomenal growth curve of the Private Equity industry in Europe and the United States over the 2000-2007 period drew media and regulatory concerns about its effect on business and society. In particular, buyouts have been pointed out for their potentially negative social impact (Financial Services Authority, 2006; Bocquet Report, 2007).

Hereby, the question of the characterization of a socially responsible investment movement in Private Equity is by far not trivial and the analysis of its drivers is challenging both empirically and theoretically. The pioneering work of Cumming and Johan (2007), first to consider the direct intersection between SRI and Private Equity, analyzes the factors that influence institutional investors to allocate capital to socially responsible Private Equity investments. The authors forecast an increasing demand by institutional investors to invest responsibly and call for further research on the factors that give rise to fund managers offering such investment alternatives to their investors.

This paper hence sets up to analyze the responsible investment movement in Private Equity. First, it establishes that the industry benefited from the maturation of SRI on public financial markets. In particular, the Private Equity approach of SRI appears to be a mainstream approach initiated by large conventional players. Hypothesis on the characteristics and drivers of the responsible investment movement in Private Equity are econometrically tested with multivariate analysis on a unique database covering the French Private Equity industry, third world largest after the United States and the United Kingdom. Main findings are that SRI in Private Equity is characterized by shareholder activism and strategically driven by a need for new value creation sources, increased risk management and differentiation. In particular, results show that independent funds, which need to attract investors, are more likely than captive funds to develop responsible practices.

The remainder of the paper is organized as follows. Section 2 defines and provides historical insights on SRI and Private Equity to establish where this industry stands in terms of responsible practices. Section 3 builds testable hypothesis. Section 4 presents data. Section 5 displays results. Main findings are discussed in section 6 as well as the potential evolution of the socially responsible Private Equity movement in light of the upcoming regulatory context. Section 7 concludes on potential further research paths.

2. PRIVATE EQUITY AND RESPONSIBLE INVESTMENT: WHERE DO WE STAND?

As a starting point, this section briefly reviews the parallel development of the SRI concept on the one hand and of the Private Equity industry on the other hand, hence contextualizing the integration of responsible investment in Private Equity.

2.1. The Socially Responsible Investment concept, from margin to mainstream

SRI involves two main approaches. The first consists in using screens to either avoid (negative screening) or seek out (positive screening) specific investments when building a portfolio. Screens can be ethical, normative (based on social or environmental international norms), sectoral or best-in-class (selecting most CSR proactive firms, whatever their sector). The second main SRI approach is engagement or shareholder activism: shareholders' voting rights are used to directly foster CSR in portfolio companies. Both approaches share the integration of a consideration of ESG issues in investment practices. Eccles and Viviers (2011) add to this definition that this integration be done "with the primary purpose of delivering higher-risk-adjusted financial returns".

Such has not always been the case, as illustrated in Renneboog et al. (2008)'s review of the SRI maturation from the 17th century Quakers ideology to nowadays. The authors date back to 1971 the creation of the first modern SRI mutual fund, the Pax World Fund, for United States investors opposed to the Vietnam War and militarism. In the 1980's, United States and European SRI investors focused on exerting pressure on companies doing business in South Africa during the racist apartheid. Issues like environmental protection, human rights, and labor relations were introduced in the 1990's, parallel to the growth of ethical consumerism that environmental and industrial disasters enhanced. Renneboog et al. (2008) end this chronology with the 2000's focus on corporate governance, transparency and responsibility, grounded in a series of corporate scandals.

Beyond the enlargement of the SRI content, the 2000's were also the years of the SRI shift from a marginal niche market to a mainstream practice, a phenomenon called 'SRI mainstreaming' and based on the progressive penetration of SRI (extra financial) criteria into conventional investment funds focused on financial criteria only (Sparkes and Cowton, 2004; Bourghelle et al., 2009). Dunfee (2003) concludes that SRI has the potential to become a mainstream phenomenon practiced by ordinary investors. Louche and Lydenberg (2006) precise that this movement is likelier is the European that in the United States' financial landscape. Indeed, Crifo and Mottis (2011) and Arjalies (2010) show that this potential has been realized by assets managers in the French market. More specifically, Arjalies (2010) argues that SRI has developed in France in the late 1990's as a result of a deliberative and organized social movement, which aimed at changing the institutional logics of the asset management field. The legislative context also mattered for the development of long term investing and SRI in France and potentially the emergence of SRI mainstreaming: creation of a Pension trust Fund (Fonds de Reserve des Retraites) in 2001 with a specific SRI policy, Laws on Employee Savings in 2001 and 2003 promoting long term investing , New Economic Regulation Act in 2001 and Grenelle 2 Act in 2011 introducing compulsory responsibility reporting for listed and non listed firms (Crifo and Mottis, 2011).

2.2. The surge and crisis of the Private Equity industry

Parallel to the development of the SRI market but on a whole different scale, Private Equity witnessed a striking growth curve over 2000s, until the financial crisis. To grasp the economic role of those investors and how responsible investment can fit in their practices, let us first describe their business.

Private Equity holds a key role in our economies because it finances innovation and unlisted companies, most of them being small and medium size enterprises. As put by the French National Economic Analysis Center: “Thousands of Medium Size Enterprises, which make up a large share of our country’s productive structure, do not have today, and will even less have tomorrow, any other financing source than Private Equity” (Glachant et al., 2008).

Indeed, Private Equity acts as financial intermediary between investors (the “Limited Partners”) and companies. A limited partnership links the Private Equity firm, who acts as “General Partners” and manages the fund, to the Limited Partners who provide the capital. Limited Partners neither manage the funds they invest in nor intervene at the investee company level, yet they regularly assess the quality of the investments made by General Partners. Typically, Limited Partners are institutional investors (banks, insurance companies and pension funds) but also count family offices, individuals, corporations and Government agencies. Private Equity funds exist for a fixed period (usually 10 years) over which the

General Partners acquires companies, generate cash, and sell them to redistribute capital and dividends to the Limited Partners. Private Equity investors are thus significant or majority shareholders of companies for 4 to 7 years. Depending on the growth stage on the company and the complexity of the deal (Morrell and Clark, 2010), the industry can be broken down in different segments. Venture capital usually invest in younger companies in innovative or technological industries as minority shareholders. Buyouts target larger companies in more mature industries and encompass Growth capital, Transmission Capital and Distressed Capital depending on the company stage and needs. Leveraged buyouts (LBO), most common in Transmission Capital, are specific deals in which a small share of equity is invested and leveraged by a large acquisition debt.

The surge of Private Equity financing first occurred in the United States over the 1980s, a decade of intense corporate restructuring in the face of international competition and deregulation (Jensen, 1993). It was driven by LBO and often relying on junk bond financing. As the junk bond market crashed, many LBO defaulted and investee companies went to bankruptcy, so that the Private Equity industry nearly disappeared in the early 1990's (Kaplan and Strömberg, 2009). However, remaining Private Equity funds acted as a substitute for weak capital markets over the 1994-2004 period (Boucly et al., 2009) and the industry underwent a steady growth. In 2001, venture capital investments were almost 100 times larger than they were in 1977, whereas bank lending to small firms stayed constant at the best over the same period (Ueda, 2004). The 2000s thus witnessed a new boom of the Private Equity and LBO peaked in the 2006-2007 due to a period of euphoric credit markets (Kaplan and Strömberg, 2009).

The 2008 financial crisis led fundraising and debt markets to plummet and ended the Private Equity surge (Figure 1). From then on, competition rocketed up and returns had to increasingly come from value creation, such as selecting underdeveloped companies and accelerating their growth, rather than financial leverage effect (Boucly et al., 2009). Price competition and consequent quest for value creation had nevertheless started prior to the crisis, as shown by Jin and Wang (2002) and Gaspar (2009). This paper conjectures that responsible investing practices are part of this value creation quest.

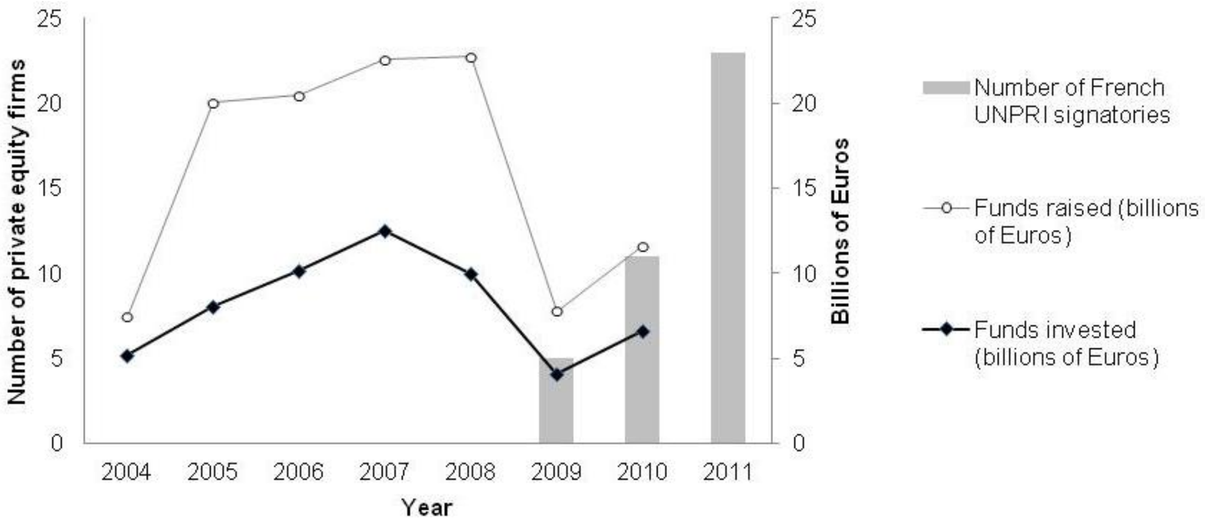

FIGURE 1. French Private Equity market (data AFIC 2011 and UN PRI 2011) in amounts of funds raised, funds invested and UN PRI signatories.

2.3. Integration of responsible practices by Private Equity investors

The official intersection of Private Equity and SRI can be dated back to 2009, a period of liquidity dearth. Indeed, the first major move towards responsible investment in Private Equity was the adoption (February 10, 2009) of guidelines covering environmental, health, safety, labor, governance and social issues by large conventional players, namely the United States Private Equity Council, representing 13 of the world's largest Private Equity investors. Within a month, the Private Equity United Nations Principles for Responsible Investing (UN PRI) were launched and its Board stated (March 2009):

> "We also need to recognize that investors can, and should, be part of the response to this crisis and that responsible investment has an important role in mitigating future such market failures.(...). This crisis demonstrated a clear lack of understanding of our underlying

> investments, and how they may have been putting not only the companies involved at risk, but the entire economy."

Between February 2009 and August 2011, 107 Private Equity companies became UN PRI signatories, among which world leaders funds of funds and General Partners. National associations are major actors in this change, as witnessed by the Australian Private Equity and Venture Capital Association asking its members to "seriously consider signing the UN PRI" in August 2009 or the responsible investing guidelines provided in June 2010 by the British Association. In France, the Sustainable Development Project of the French Association for Private Equity (AFIC) was launched in April 2010 by conventional Private Equity firms. Key figures also encourage the SRI movement in Private Equity, such as Lord Mandelson, the United Kingdom secretary of state for business, innovation and skills, who emphasized that embracing CSR issues into Private Equity investment approach made "good business sense" (September 2009).

Henceforth, SRI in Private Equity can be conjectured as a mainstream approach initiated by large players and structurally neither thought of nor developed as a niche market. Typically, socially responsible Private Equity hence essentially differs from conventional Private Equity in that it integrates ESG issues in its investing practices.

Let us finally note that despite its quick evolution, SRI in Private Equity is still at its first steps. The UN PRI estimate that the share of total Private Equity market share subject to integration by PRI signatories worldwide was 5% in 2009 and 8% in 2011. As about 10% of the AFIC members are UNPRI signatories, France appears as an active and interesting field to investigate in details the SRI movement in Private Equity. Private equity and venture capital funds

3. TESTABLE HYPOTHESIS ON CHARACTERISTICS AND DRIVERS OF THE RESPONSIBLE INVESTMENT MOVEMENT IN PRIVATE EQUITY

Whereas socially responsible Private Equity differs from conventional Private Equity by its integration of ESG issues, does it presents specificities compared to SRI on financial markets? This section builds testable hypothesis on the characteristics of socially responsible Private Equity and respectively its strategic and responsive drivers.

3.1. Hypothesis on the Characteristics of Socially Responsible Private Equity

A straightforward conjecture is that difference between SRI on financial markets and socially responsible Private Equity might directly arise from the specificities of Private Equity itself. Drawing from the corporate finance literature, four characteristics of Private Equity are hence here detailed: information asymmetry reduction; governance engineering; agency costs cut; and operational engineering. Impacts on ESG criteria integration are conjectured and lead to testable hypothesis.

First, asymmetric information between informed managers and the public market has been shown to cause under-investment in Myers and Majluf (1984)' seminal paper. Private Equity investors reduce this information asymmetry by monitoring the companies they select (Holmstrom and Tirole, 1997) and evaluating them better than a standard financial institution would (Ueda, 2004). Empirical evidence is found that Private Equity investors acquire companies lower than other bidders and sell them high (Acharya and Kehol, 2008). Therefore Private Equity investors either succeed in identifying under-valued companies or at taking advantage of market timing (Kaplan and Strömberg, 2009). Analyzing ESG during acquisition stages and due diligence process provide new information to improve monitoring and comprehensively assess assets. As such, ESG integration appears as another tool to reduce information asymmetry and improve business.

Second, governance engineering has been shown to be another Private Equity strength (Kaplan and Strömberg, 2009). Private Equity investors usually have significant impact (if not complete control) on portfolio company board and are much more involved in governance than public companies board. For instance, it is not unusual that they initiate a management change. Managing governance issues is thus already core in Private Equity business. Hereby, the gap between managing "G" to full "ESG" issues is more easily filled in by Private Equity investors than public investors.

The following hypothesis on characteristics of responsible investment in Private Equity is thus proposed:

H1: Responsible Private Equity firms tend to integrate ESG issues in mainstream business, rather than considering it as a niche market segment.

Third, the agency theory framework has been applied to the Private Equity setting by Jensen (1986, 1989), leading to the free cash flow hypothesis. Jensen argues that managers in companies with excess cash flows have an incentive to waste organizational resources on personal ends, rather than pay out the excess cash to shareholders through dividends. However financing by equity investors lead to high debt level (particularly for leverage buyouts) which affect the free cash flows of the firm for debt servicing, preventing opportunistic behaviors of managers. The hypothesis has been empirically validated since (Ambrose and Winters, 1992; Opler and Titman, 1993; Desbrières and Schatt, 2002). Private Equity tight hand on agency costs will naturally lead investors to carefully consider CSR in their portfolio companies, since CSR has also been pointed out as a waste of slack resources for managers who like the accolades of environmentalists or try to develop entrenchment strategies as an insurance against poor economic performance (Baron et al., 2009; Cespa and Cestone, 2007). Being a socially responsible Private Equity investor means fostering CSR in portfolio companies while reducing agency costs. To succeed to do so, investors needs to be well informed of managerial decisions and closely involved in strategic changes. Engagement thus appears a necessity to consistently be a socially responsible Private Equity investor.

Moreover, Kaplan and Strömberg (2009) argue that a property of Private Equity investors is operational engineering. Typically, Private Equity firms possess industry and operational expertise by their choice of human capital. They are thus able to advise companies at the core of their business to enhance value creation. Distinguishing value-creation CSR from managerial entrenchment requires a sound understanding of the firm environment and markets, which Private Equity possesses. The following hypothesis on characteristics of responsible investment in Private Equity is thus proposed:

H2: Responsible Private Equity relies on shareholder activism rather than screening.

Nevertheless, understanding CSR potentiality needs sound expertise. Indeed, CSR encompasses many dimensions, some being complements and other substitutes (Cavaco and Crifo, 2010); some being linearly linked to profitability and other having optimum (Forget, 2011). Yet expertise on strategic CSR is still scarce, all the more considering the recent interest of the industry for ESG issues. It is thus more likely for large Private Equity firms benefitting from wide human capital resources to be able to appropriately acquire CSR expertise. It can thus be conjectured that large Private Equity firms are more likely to engage in responsible investment practices.

H3: Responsible practices are more likely to be implemented in large Private Equity firms in terms of workforce.

3.2. Hypothesis on Strategic Drivers of Responsible Private Equity

The idea of strategic ESG integration refers to the reconciliation of social and long term economic interests of corporations. Experts in profit maximization, Private Equity investors seem likely to opportunistically analyze CSR as a strategic resource to improve the bottom line performance of companies (McWilliams et al., 2006). In their survey, Cumming and Johan (2007) indeed find that socially responsible institutional investment programs are more common among investors expecting greater economic returns from those investments. Porter and Kramer (2006) also provide strong evidence that it is through strategic CSR that the company will make the most significant social impact and reap the greatest business benefits.

The following potential strategic drivers for responsible Private Equity are identified: value-creation; risk management; new market creation; differentiation and related compliance to Limited Partners demand.

3.2.1. Hypothesis on Value creation as a strategic driver

Can a Private Equity fund creates value by integrating ESG criteria in investment practices? If investors believed so, then responsible investing would be grounded in profit-maximization. Let us briefly review arguments in favor of such a belief.

As a starting point, empirical comparisons of public SRI performance to standard portfolios lead to rather lukewarm results, the former either achieving similar or lower yields than the latter (Statman, 2000; Bauer et al., 2002; Kreander et al., 2005). Cowton (2004) argues that it is theoretically very difficult for SRI investments to outperform on average, because anything a SRI fund can do, so too can a non-SRI fund. Jones et al. (2008) also find SRI underperformance and ground it in the additional transaction costs and management fees generally associated with SRI screening. Recent work suggests that whereas SRI underwent a learning period in which it underperformed standard portfolio, it since caught up with conventional funds performance (Climent and Soriano, 2011).

However, as previously underlined, Private Equity investors structurally differ from public investors. Beyond governance and operating engineering, they typically do not build large and diversified portfolios based on modern portfolio theory but rather select and follow a few companies in which they are significant active shareholders over a long period. Value creation in the Private Equity context should thus rather be analyzed through the lens of the link between CSR and financial performance than SRI versus standards portfolios.

This link has elicited much interest over the last three decades. Recent literature reviews (Orlitzky et al., 2003; Portney, 2008; Reinhardt et al., 2008; Margolis et al., 2009; Forget, 2010) converge to a consensus on the absence of a financial penalty associated with CSR. Yet generating over-performance with proactive CSR does not come straightforward, leading academics to advocate research on how corporations can succeed in both performing on social and financial levels. Reviews also highlight that value can be created though different channels.

First, anchored in Porter's hypothesis (Porter and Van der Linde, 1995), increased input-output efficiency can provide a competitive advantage. In this line, Derwall et al. (2005) find a positive link between eco-efficiency and financial performance. Such a potentiality has already been grasped by Private Equity investors. For instance, the giant Private Equity firm Kohlberg Kravis Roberts (KKR) developed with the help of the NGO Environmental Defence Fund a Green Portfolio Program in which tools are implemented to reduce the portfolio companies' environmental impact. The Program now involves 16 companies, making up 20% of its total global portfolio. In 2009, KKR estimated results at $160 million avoided costs and 345,000 metric tons of CO_2, 1.2 million tons of waste, and 8,500 tons of paper use avoided with green initiatives. A second channel is the reduction of costly employee turnover and the recruitment of motivated, hence more productive, employees (Turban and Greening, 1997; Brekke and Nyborg, 2007). Understanding potential gains, the French restaurant chain Léon financed by OFI Private Equity improved its social policy and reduced employee turnover from 102% to 38% from 2002 to 2009 (AFIC Sustainable Club, 2010). Finally, CSR might answer consumers' demand and increase companies reputation, leading to long-term increased brand and company values. Kanter (1999), Porter and Kramer (2002) and Kotler and Lee (2005) support that CSR can improve reputation and consumer loyalty and are thus good for business from a marketing perspective. The Private Equity firm Blackstone (935 billion USD under management in 2009) supports this argument while promoting energy efficiency in the Hilton Hotels, which it claims saved 15 to 20 million USD in 2008. Portney (2008) precises that it might be particularly true for firms in the food and consumer products businesses, as is the case of the Hilton Hotels and Léon.

Hereby a strong rationale backs up the belief in value potentially created with improved ESG management, even though it requires sound expertise. The following hypothesis is thus proposed.

Hypotheses on strategic value creation:

H4: Responsible practices in Private Equity are motivated by creating value in portfolio companies.

3.2.2. Hypothesis on Risk management as a strategic driver

Another strategic rationale for promoting CSR in portfolio companies is improved risk management. As the company's cash flow is used to service the acquisition debt, Private Equity investors' greater risk is that the company will not achieve the cash flow necessary (Le Nadant and Perdreau, 2006). This is particularly crucial in the case of leveraged buyout transactions, in which investors are hence most interested in the company's future capacity to generate large and steady levels of cash flow. Hereby risk analysis, including ESG risks, are core to Private Equity business. Principle 1 of the UN PRI is thus "about better analysis of risk" and "calls for the integration of a broader range of environmental, social and governance issues into investment processes".

Scholtens (2006) identifies three specific risks particularly associated with ESG management default. A first direct risk is present when the investor takes possession of collateral, would it for instance poses a threat to the environment, as fines, decontamination or compliance to standards can become costly. A second indirect risk arises from changes in environmental or social legislation (or consumer preferences), which can affect company's revenues and thereby its default probability. Finally, a reputational risk is also present where actions of borrowers may negatively feedback on its financiers. Hence the following hypothesis is proposed.

Hypotheses on strategic risk management:

H5: Responsible practices in Private Equity are a risk-management tool.

3.2.3. Hypothesis on New markets creation as a strategic driver

Environmental issues can create new business opportunities and offers wide innovation possibilities. This opening up of previously undiscovered market has early been highlighted as a rational for CSR (Porter and Van der Linde, 1995; Porter and Kramer, 2002). The Private Equity industry already seized this opportunity, as witnessed by their increasing involvement in the renewable energy and clean technology markets. Structurally, part of the Private Equity business exists to finance and support new companies and new markets.

Indeed, business angels, seed capital and more globally speaking venture capital provide equity to managers creating or developing businesses. Typically, venture capital is oriented towards innovative firms (health sector, biotechnologies, informatics, energy sector) that can exploit new market opportunities based on consumers' new demand. To do so, they are usually specialized in a small group of industries (Sahlman, 1990) as identifying profitable ideas needs good technical and market knowledge. Conversely, buyouts usually target more mature markets with steady cash flows (services, consumer goods, chemistry, industry) in which CSR rather consists in a transversal approach than in the development of brand new products.

The following hypothesis can thus be proposed.

Hypotheses on strategic new market creation:

H6: Venture capitalists are more likely than other Private Equity investors to develop specialized green funds in order to open new markets.

However, we should note that cleantech funds are distinct from responsible investment "per se". For instance, investing in solar panels does not imply that a full ESG risk analysis has been conducted. The gap between green funds and socially responsible investing even appears acknowledged and institutionalized by the Private Equity industry, as witnessed by the co-existence in the French Private Equity Association of a "Sustainable Growth Club" and a "Green Techs Club".

3.2.4. Hypothesis on Differentiation and related compliance to Limited Partners demand as strategic drivers

Differentiation can drive responsible investment in Private Equity firms under a twofold motivation: reducing competition intensity and capturing Limited Partners' preferences.

Competition intensity between Private Equity firms rocketed up with the financial crisis and the 2009 crash of equity raised worldwide. In France, equity raised fell from 12.7 billion EUR in 2008 to 3.6 billion in 2009, representing a 71% withdraw. Hereby General Partners need harder than ever to realize value; debt markets remain uncertain; and fundraising is jeopardized by many Limited Partners facing liquidity issues. Most of the French drop came from the two historically main Limited Partner categories, banks (-77%) and insurance companies (-81%). Meanwhile, individual investors best resisted to the crisis (-12%), thus becoming the first source of equity raised in 2009 (AFIC, 2010). Consequently, the financial crisis tightened up fundraising and drastically increased competition intensity between Private Equity firms to attract investors. Competition for fund raising will keep on increasing over the next years as a consequence of the Basel III global regulatory standard on bank capital adequacy and liquidity, which ranked Private Equity funds as being among the most risky and illiquid assets.

However, competition is likely to be heterogeneously perceived by Private Equity funds depending on whether they are *captive funds* or *independent funds*. A captive fund is significantly owned by its Limited Partners (typically a bank or a corporation); hereby fundraising is eased. On the contrary, an independent fund is owned by the Private Equity firm partners and needs to compete to raise funds. Previous literature already highlighted different behaviors between captive and independent funds (Gompers and Lerner, 2000; Hellmann, 2002; Hellman et al., 2004)

Integrating ESG criteria might thus be used by Private Equity firms as a differentiation tool to attract Limited Partners. CSR has already been shown to be a means of differentiation in otherwise competitive environments (Arora and Gangopadhyay, 1995; Fisman et al., 2007), and to most strongly affect performance in low-innovation firms and in industries little segmented (Hull and Rothenberg, 2008), as is the case of the Private Equity industry. Moreover, in a KPMG (2010) survey, ESG risks indeed ranked top among respondents when asked in which areas they would require more information over the next year. As put by a General Partner in the Ten Takeaways from the 2010 Private Equity International CFOs and COOs Forum: “When a Limited Partner asks for information – any information – you do it”.

Since fundraising competition is likely to be tougher for independent funds than captive funds, they might also be more induced to differentiate by offering CSR attributes to their investors.

Hypotheses on strategic differentiation by responsible investing:

H7A: Independent funds are more likely than captive funds to develop responsible practices as a differentiation tool to attract investors.

Another related motivation for CSR differentiation in the Private Equity context might also be to capture Limited Partners’ preference. Theoretical and empirical work previously found that individual investors may derive non-financial utility from investing in SRI funds (Bollen, 2007; Renneboog et al., 2007). Moreover, different investors exhibit differences in solvency and returns requirements, extent of regulatory oversight, corporate objectives and accounting rules (Cumming and Johan, 2007). They might also differ in their CSR commitments. In particular, earlier studies support that long-term investments are positively correlated with corporate social performance (Cox et al., 2004; Johnson and Greening, 1999; Graves and Waddock, 1994). Among long-term investors, the regulatory constraints which European

Pension funds already face (see Renneboog et al. (2008)' review of Pension funds European regulations) are likely to increase their interest for French responsible investments.

The following hypotheses are thus proposes.

H7B: Funds with long-term investors, in particular pension-funds, as Limited Partners are more likely to implement responsible practices.

3.3. Hypothesis on Responsive drivers of responsible Private Equity

Strategic drivers of responsible investing are typically opposed to responsive drivers. Whereas the former imply a proactive use of CSR to generate profits, the latter hints that sacrificing profits to provide environmental or social performance will hinder the firm from social pressure. Supporting this dichotomy, Baron et al. (2011) empirically show that responsive CSR increases with the firm's slack resources and not strategic CSR.

The Private Equity industry has been the focus of intense criticism over the past few years, both in Anglo-Saxon and Continental Europe countries. The publication of *Behind the buyouts* (2007) by the Service Employees International Union, representing over 2 million employees in North America, raised a criticism wave focused on Private Equity's lack of transparency and foresight in labor relations. In France, an "LBO collective" was created in 2006, gathering union and media protest. Their concern was brought to the French National Assembly in 2007 by the Bocquet report, which blamed short-termism impacting employees, drying-off of investing capacities and prevalence of short-term financial profits over long-term industrial growth in companies financed by the Private Equity industry.

Whether those concerns were grounded only find mild support by academics. On the French market, Boucly et al. (2009) show that Private Equity has a positive effect on employment and wages. In one of the larger study ever conducted on the topic, Davis et al. (2008) focus over the 1980-2008 period on United States establishments financed by Private Equity and find that employment increases less than in other firms in the retail business sector, but not in the manufacturing sector. Amess and Wright (2007) highlight a similar growth of LBO and non-LBO firms in the United Kingdom over the 1999-2004 period. Evidence that non-financial stakeholders suffer Private Equity short-termism is thus at best mixed.

However, the financial crash the world economy underwent drew public attention to the funds' activity. The Private Equity recent surge also made it clearly visible. A General Partner hence stated in the British Venture Capital Association report (2010): “General Partners must accept that, now that they are managing large amounts of money, they face increased scrutiny from governments”. Grounded or not, the reputation of Private Equity has been tarnished and it social interest is now contested. Dominique Senequier, chief executive of Axa Private Equity, a world leader General Partners, hence stated:

> *"The pursuit of short-term profit has tarnished Private Equity's reputation and played havoc with many solid businesses. At Axa Private Equity, we believe we should regard the building of relationships with all stakeholders as an investment in itself, in order to maximise the benefit to all parties over the long term".*

Cases of visible polluting industries increasing their environmental and/or social performance under social pressure are many in the CSR literature. The “license to operate” concept proposed by Post et al. (2002) well summarizes that a firm can hardly survive long when its social interest is contested and its actions have lost legitimacy.

However, social pressure is likely to focus on specific Private Equity actors, namely large visible firms and/or LBO. Indeed, Cumming and Johan (2007) indicate that socially responsible Private Equity investment programs are more common among larger institutional investors. This finding is in line with larger companies tending to be more scrutinized than smaller ones. Second, LBO have been more subject to social criticism than other types of Private Equity, even though Venture Capital's drawbacks have also been pointed out

(Hellmann et al., 2008; Ueda, 2004). LBO and Transmission funds being both larger and more subject to criticism than other Private Equity funds types, the following hypothesis can be proposed.

Hypotheses on responsive driver of responsible investing:

H8: Large and thus visible Private Equity firms as well as leveraged buyouts specialists are more likely to engage in responsible practices that are well formalized and publicly communicated to protect their reputation and license-to-operate.

The following section now presents the data on which the established hypotheses are tested.

3. DATA AND METHOD

3.1. The French Private Equity industry

Second largest market in Europe after the United Kingdom, the French Private Equity market (comprising both venture capital and buyouts) is also the third market worldwide in amounts invested behind the United States market (AFIC, 2010).

The French Private Equity industry is usually segmented in: seed and venture capital (9.4% funds invested), growth capital (35.9%) and transmission capital transactions (54.7%; data AFIC, 2010). Leveraged buyouts (LBO) mainly occur in Transmission Capital and essentially deal with divestments of subsidiaries within groups ("spin-offs"; 64.1%); transmission of family businesses (30.8%) and to a minor extent with stockmarket-listed companies going private ("PTPs"; 5.1%).

The French Private Equity market is hence representative of the European market. However, some differences appear compared to Anglo-Saxon markets. For instance, PTPs are limited in France compared to the United States and the United Kingdom industries due to regulatory constraints (Le Nadant and Perdreau, 2006). Another specificity of the French Private Equity market arises from lower debt pressure (Desbrières and Schatt, 2002) as well as the substantial part of their personal wealth French managers usually invest in the company's capital (Mehran, 1995; Desbrières and Schatt, 2002).

3.2. Sampling and structural data

The sample gathers observations on 309 Private Equity firms in 2011. It is thus close to the whole French industry, and include 278 out of the 280 members of the French Private Equity Associations, non members of the Association and French local Private Equity firms sponsored by the French Sovereign Wealth Funds (FSI). Equity Data was collected from the

Private Equity firms' website, press releases and specialized media[1] on: their main characteristics (firm age and size; portfolio size); financial structure (assets managed; funds raised); legal form; ownership (firm shareholders); Limited Partners; activity (transaction type); investment scope (geographical, financial and sectoral scope); management (gender and background); and public responsible investment practices (signatory of the UNPRI and of the French National Association Ethics Chart; management of green or social funds; web communication on responsible investment practices; interest as proxied by answer to responsible investment surveys).

Variable description and descriptive statistics can be found in Table 1 and the correlation matrix in the Appendices.

[1] Le Guide des Sociétés de Capital Investissement 2010 & 2011; http://investing.businessweek.com ; http://www.cdcentreprises.fr

TABLE 1. Descriptive statistics on public data

Variable name	Definition	Observations	Mean	Standard deviation	Minimum	Maximum
Main characteristics						
Firm Age	Years elapsed since firm foundation	310	13.2	11.7	0	102
Workforce	Number of employees	286	13.2	27.2	1	371
Funds	Number of funds managed by the firm	302	5.0	8.7	0	65
Companies	Number of companies hold in portfolio	288	39.7	74.2	0	700
Assets managed	Millions of Euros of assets managed	295	876.2	2951.7	0	32000
Ownership: Percentage of firms shares...						
Listed	... listed on a Stock market (in %)./	303	0.01	0.09	0	1
PE firm	... owned by another Private Equity firm (in %).	274	0.16	0.34	0	1
Partners	... owned by the firm Partners (in %).	274	0.42	0.47	0	1
Bank	... owned by a Bank (in %).	274	0.18	0.33	0	1
Insurance company	... owned by an insurance company (in %)	274	0.03	0.16	0	1
Industry	... owned by an industrial corporation (in %).	274	0.05	0.19	0	1
French state	... owned directly or indirectly by the French State (in %).	274	0.11	0.26	0	1
Other	... owned by other shareholders (in %).	274	0.03	0.14	0	1
Limited Partners: Dummy variable equal to 1 if....., 0 otherwise						
LP Industry	....the firm manages funds provided by an industrial corporation	271	0.19	0.39	0	1
LP Captive	... the firm is captive and essentially manages funds provided by a single bank or insurance	271	0.32	0.47	0	1
LP Sovereign	...the firm manages funds provided by a Sovereign Wealth Funds	274	0.39	0.49	0	1
LP Individuals	... the firm manages funds provided by individuals	273	0.21	0.41	0	1
LP Institutional	... the firm manages institutional funds (except pension funds)	267	0.76	0.43	0	1
LP Pension funds	... the firm manages funds provided by pension funds	267	0.26	0.44	0	1
LP Family offices	... the firm manages funds provided by family offices	266	0.37	0.48	0	1
Activity						
Venture Capital	Percentage of funds invested in venture capital	303	0.42	0.49	0	1
Transmission	Percentage of funds invested in transmission capital	303	0.60	0.49	0	1
Growth	Percentage of funds invested in growth capital	303	0.59	0.49	0	1
Mezzanine	Percentage of funds invested in mezzanine	303	0.07	0.26	0	1
Distressed Capital	Percentage of funds invested in distressed capital	303	0.09	0.28	0	1
Funds of funds	Percentage of funds invested in funds of funds	303	0.11	0.31	0	1

Investment scope: Dummy variable equal to 1 if...., 0 otherwise						
Minority	.... the firm invests as a minority shareholder	242	0.78	0.42	0	1
Regional scope	... the firm invests at a regional scope	311	0.92	0.27	0	1
European scope	... the firm invests at a European scope	311	0.58	0.50	0	1
International scope	... the firm invests at an international scope	311	0.21	0.40	0	1
Sector	... the firm manages at least one fund specialized in a sector	302	0.36	0.48	0	1
Management: Dummy variable equal to 1 if the Chairman ..., 0 otherwise						
Gender	... is a woman	299	0.05	0.21	0	1
Founder	... founded the firm	290	0.43	0.50	0	1
Engineer	... has a French “Grandes Ecoles” Engineer background	256	0.28	0.45	0	1
Business school	...has a French Business School background	254	0.47	0.50	0	1
International	... has an international background	254	0.22	0.42	0	1
Other	... has a different French background	254	0.46	0.50	0	1
Public Responsible Investment Practices: Dummy variable equal to 1 if the firm.... , 0 otherwise						
UNPRI	... is a UNPRI signatory	316	0.09	0.28	0	1
AFIC Chart	... is signatory of the French Private Equity Association Ethics Chart	317	0.67	0.47	0	1
Green or Social fund	... manages at least one fund with a social or environmental target	302	0.12	0.32	0	1
Communication	...has a website referring to responsible investing practices	297	0.18	0.38	0	1
Interest	... answered to responsible investment survey	308	0.24	0.43	0	1

3.3. Survey data

Whereas structural and investment data can be collected in the public domain, such is not the case of strategies behind responsible investment practices. To get an insider perspective, the database is thus completed with survey data.

The survey was built in partnership with Novethic, a subsidiary of the French public institution and long-term investor Caisse des Dépôts et Consignations, and sent to 308 Private Equity firms in March 2011. The questionnaire comprises items on practical ESG integration and formalization; dedicated resources; greenhouse gas emission assessment; positive or negative screening; support provided to the company portfolio to foster CSR; belief in the importance of ESG integration for Limited Partners and firm reputation. Questionnaires were emailed and filled online. The return rate of 24.0% (74 respondents out of 308 firms) exceeds those usually observed in Private Equity surveys (Cumming and Johan, 2007; BVCA, 2010). Descriptive statistics can be found in Table 2.

To limit social desirability bias, the questionnaire made no reference to “socially responsible investment” or to “ethics” (Neumann, 2003; Vyvyan et al., 2011). To stimulate frank answers, the anonymity of respondents was ensured (Kuckertz and Wagner, 2009). Questionnaire wording (translated from French)[2] is presented in the Appendices.

Another common bias in surveys arises from self-exclusion of respondents. Following Moore and Reichert (1983) and Kuckertz and Wagner (2009), this issue is dealt with by comparing firm characteristics of the respondents to the non-respondents. Univariate tests were used (t-tests with Satterthwaite’s approximation when needed; chi-square tests for categorical data). Main findings are that responding and non-responding groups are similar in terms of firm size, management, investment scope and type. However, as expected (Kuckertz and Wagner, 2009), replies contain a disproportionate number of companies particularly concerned about

[2] Original French questionnaire available upon request

responsible investing. Hereby survey answers are used as a proxy for firm's interest in responsible investment practices.

Table 2. Descriptive statistics of survey data

	All respondents			UNPRI signatories	
	Obs.	Mean	StD.	Obs	Mean
Formalization					
ESG Chart	74	0.35	0.48	22	0.59
ESG formation of PE firm employees	74	0.46	0.50	22	0.73
ESG issues managed by a specialized employee	69	0.20	0.40	22	0.36
ESG issues managed by a non specialized employee	69	0.35	0.48	22	0.36
ESG issues directly managed by investors	69	0.26	0.44	22	0.23
ESG issues managed by a specialized third party	69	0.03	0.16	22	0.05
Engagement					
ESG Chart sent to portfolio companies	74	0.26	0.42	22	0.36
Monitor E. performance of portfolio companies	74	0.20	0.40	22	0.41
Monitor S. performance of portfolio companies	74	0.53	0.50	22	0.64
Monitor G. performance of portfolio companies	74	0.66	0.48	22	0.68
Demand ESG reporting to portfolio companies	74	0.22	0.41	22	0.41
ESG issues brought to company's supervisory board	74	0.23	0.42	22	0.32
ESG issues in shareholders' pact	74	0.18	0.38	22	0.18
Visit companies and plants	74	0.26	0.44	22	0.27
Screening					
Sectoral or normative exclusion	74	0.84	0.37	22	0.73
Already discarded investment on ESG grounds	74	0.45	0.50	22	0.59
Value financial performance driver					
ESG impact measured	66	0.17	0.38	21	0.29
Already bargained lower company price on ESG grounds	74	0.12	0.33	22	0.18
ESG issues matter for risk management	74	0.64	0.48	22	0.77
ESG issues matter to increase company value	74	0.43	0.50	22	0.54
LP demand driver					
ESG Chart communicated to Limited Partners	74	0.24	0.43	22	0.41
ESG reporting communicated to Limited Partners	74	0.12	0.33	22	0.32
ESG performance matters to Limited Partners	74	0.51	0.50	22	0.73
Reputation driver					
ESG Chart public	74	0.05	0.23	22	0.18
ESG reporting public	74	0.01	0.12	22	0.05
ESG issues matter for reputation and image risk	74	0.46	0.50	22	0.59

4. MULTIVARIATE EMPIRICAL ANALYSIS

Descriptive statistics on public and survey data provide first elements of analysis (Tables 1 and 2). Probit regressions are then used to analyze the factors driving the probability that a Private Equity firm implements responsible investment practices. Three public indicators of responsible investing are empirically investigated: being a UN PRI signatory (Tables 3 and 4); managing a funds specialized on environmental or social issues (Table 5); and communicating on responsible investing on website (Table 6).

Results are now presented and discussed.

4.1. Results on Characteristics of Responsible Private Equity

Results confirm hypothesis H1: Responsible Private Equity firms do not belong to an SRI niche market but rather integrate ESG issues in mainstream business. Indeed, we find that 12% firms manage at least one environmental or social funds (Table 1). Yet only 6 firms (less than 2%) specialize on such funds.. Most of those who do manage green funds also manage classic funds. Signatories of the UN PRI and firms who answered survey, i.e. firms who have an interest for CSR issues, are widely conventional Private Equity funds.

Results mildly support hypothesis H2: Responsible Private Equity investors are active shareholders yet also widely use ESG screening. 84% firms already discarded an investment opportunity of ESG grounds (see Table 2). Let us note that this high percentage might be driven up by governance issues, at the core of the Private Equity business. Indeed, we see from table 2 that only 23% brought ESG issues to company's supervisory board. Engagement nevertheless appears strong as 53% responders use direct monitoring of social issues in company (64% among UN PRI signatories), 26% visit companies or plants and 22% demand ESG reporting to portfolio companies (41% for UN PRI). However, ESG issue management is not legally enforced though the shareholders' pact.

Finally, results confirm hypothesis H3: Responsible practices are more likely to be implemented in large Private Equity firms in terms of workforce. Indeed, probabilities of being a UN PRI signatory (Tables 3 and 4) and managing green or social funds (Table 5) significantly increase with size (here size of the workforce). Moreover, survey descriptive statistics indicate that 46% of survey respondents provide and ESG formation to their employees (Table 2). This formation argues both in favor of the current lack of human capital to manage such issues, which might be problematic for ESG management, as well as a real involvement to develop this human capital.

4.2. Results on strategic drivers of responsible Private Equity

Results partly support hypothesis H4: Responsible practices in Private Equity are motivated by creating value in portfolio companies, yet not only. Indeed, survey data highlights that 43% of respondents only agree with ESG issues being important to create value (54% among UN PRI signatories; Table 2). We can note that only 12% ever measured ESG impact on their portfolio performance. Hence most investors believing that responsible investing creates value do so on qualitative grounds.

Conversely, hypothesis H5 is confirmed by survey answers: Responsible practices in Private Equity are a risk-management tool. 64% of the respondents (77% of UN PRI signatories) believe ESG issues matter for risk management (Table 2).

Strong support is also brought to hypothesis H6: Venture capitalists are more likely than other Private Equity investors to develop specialized green funds in order to open new markets. Results of the probit regression on the probability to manage such funds indeed increases significantly when the firm is a venture capitalist and significantly decreases in Transmission capital (buyouts) firms (Table 5). We can also note that Growth Capital firms are also very active on GreenTechs. Their activity is indeed more in line with venture capital than with buyouts as their invest in expansion cycles of companies. Consequently, Private Equity firms managing green funds hence show typical characteristic of venture capitalists, as significantly smaller firms in terms of workforce and assets. Probit results also confirm the dichotomy between specialized green funds and responsible investing. Indeed, being a UN PRI signatory does not increase the probability to manage a green fund (Table 5), and respectively, managing a green funds does not increase the probability to be a UN PRI signatory (Tables 3 and 4).

Evidence is mixed on hypothesis H7. As a primer, the belief among General Partners that ESG issues matter for Limited Partners is strongly supported by survey data. 51% of the respondents agree so, up to 73% among UN PRI signatories. A few firms (12%) actually report their ESG performance to Limited Partners, most likely because they are themselves still implementing ESG reporting at their portfolio level.

Hypothesis H7A is confirmed: Independent funds are more likely than captive funds to develop responsible practices as a differentiation tool to attract investors. Indeed, results show that the probability of being a UN PRI signatory increases (10% significance level) when the Private Equity firm is owned by its Partners, hence independent. However, no significant effect of specific categories of Limited Partners is found on the probability to be a UN PRI signatory, neither positive nor negative. In particular, Captive funds are not less likely to be signatories. Yet, results also show that Private Equity firms owned by banks (bank captive funds) or by Private Equity firms (PE captive funds) are less likely to communicate on responsible investing on their website than other funds. Hypothesis H7A is hence confirmed. However, hypothesis H7B is infirmed: Funds with long-term investors, in particular pension-funds, as Limited Partners do not appear more likely to implement responsible practices. Table 3 displays that firms with Pension funds as Limited Partners, as well as Institutional and Sovereign Limited Partners, are not more likely to be UN PRI signatories.

However, ownership seems to matter more than Limited Partners in this regard. CSR Communication is also more impacted by who owns the Private Equity firm rather than who finances it (Table 6).

4.3. Results on Responsive drivers of responsible Private Equity

Results partly confirm hypothesis H8 on responsive driver of responsible investing: Large and thus visible Private Equity firms are more likely to engage in responsible practices that are well formalized and publicly communicated to protect their reputation and license-to-operate; yet leveraged buyouts specialists do not particularly stand out in this regard.

As already noted, large Private Equity firms in terms of workforce are more likely to be UN PRI signatories (Tables 3 and 4) and to communicate on CSR (Table 6). This effect appears stronger and more robust when size is captured by the amounts of assets managed. However, being specialized on Transmission capital (hence leveraged buyouts) does not appear as a significant factor.

Survey data also show that ESG Chart, ESG dedicated post, ESG reporting and UN PRI signature come as a bundle (see correlation Table A in the Appendices). Hereby formalizing responsible investing appears more likely in large Private Equity firms.

Nevertheless, how to disentangle differentiation from reputation protection? First, let us note that 46% survey respondents believe ESG matter for reputation and image risk (59% UN PRI signatories), which is high but less than the belief in ESG importance for Limited Partners' demand. Second, we observe that very few firms communicate their ESG reporting (1%) and ESG Chart (5%) to the public. Those elements lead us to conjecture that protecting firm's image and reputation matters more for the business than for the public.

Table 3 Multivariant analysis (Probit) on UNPRI signature drivers

		model 1		model 2	
		Marginal effect	t-stat.	Marginal effect	t-stat.
	Age	-1,95e-05	-0.06	5,53e-06	0,02
Firm characteristics	Workforce			5,76e-04	2,18**
	Companies	-9,09e-05	-1,33	-1,49e-04	-1,94*
Ownership	Log(Assets managed)	8,33e-03	2,1**		
	PE firm	4,44e-02	1,47	-4,85e-03	-0,4
	Partners	4,78e-02	1,67*		
	Bank	4,21e-02	1,28		
	Insurance company	4,71e-02	1,09	1,66e-02	0,71
	Industry	6,11e-02	1,77*		
	French state	4,87e-02	1,56		
Limited Partners	LP Industry			-8,87e-03	-1,37
	LP Captive			-4,79e-03	-0,56
	LP Sovereign			1,39e-02	1,03
	LP Individuals	1,98e-02	1,19	4,52e-03	0,4
	LP Institutional	4,98e-03	1,15	3,20e-03	0,85
	LP Pension funds	1,03e-02	0,94	7,55e-03	0,77
	LP Family offices	-1,23e-03	-0,15	-1,15e-02	-1,45
Activity	Venture Capital	9,43e-03	0,74	4,54e-03	0,42
	Transmission	-6,27e-03	-0,52	1,15e-03	0,12
	Growth	-1,97e-02	-1,34	-2,68e-02	-1,65
	Funds of funds	3,71e-02	0,85	3,40e-03	0,17
	Mezzanine	2,27e-01	1,94*	2,11e-01	1,9*
Investment scope	Minority	1,90e-02	2,02**	1,97e-02	2,07**
	Regional scope	5,97e-03	0,28	-5,89e-04	-0,04
	European scope	-3,36e-02	-1,61	-9,30e-03	-0,77
	International scope	-6,66e-03	-0,91	-8,37e-03	-1,36
	Sector	1,22e-03	0,13	1,30e-02	1,12
	Founder			4,76e-03	0,62
Management	Engineer	-9,16e-03	-1,24	-8,09e-03	-1,14
	Business school	-1,29e-02	-1,35	-1,03e-03	-0,12
	International	1,82e-02	1,11	1,35e-02	0,98
Responsible investment practices	AFIC Chart	2,17e-02	1,84*	2,13e-02	1,98**
	Green or Social fund	-7,70e-03	-1,35	-7,50e-03	-1,45
	Communication	1,08e-01	2,85***	9,68e-02	2,64***
	Interest	1,44e-01	3,45***	1,69e-01	3,51***
Nb. of obs.		166		163	
Nb of obs. where =1		21		21	
Pseudo R2		53.08		52.67	
Loglikehood function (L)		-29.57		-29.64	
LR-Chi-2 statistics		66.91***		65.97***	

NOTE. Table 1 presents results obtained by fitting maximum-likelihood probit models and reports marginal effects (change in the probability for an infinitesimal change in each continuous variable; discrete change in the probability for dummy variables). Pseudo R2 is calculated by McFadden's formula, which is: Pseudo R2= 1 – log L / log (LR). The LR-Chi2 statistics provides a test of the model robustness by indicating that the model as a whole fits significantly better than a model with no predictors.

Table 4 Multivariant analysis (Probit) on UNPRI signature drivers

		model 3		model 4	
		Marginal effect	t-stat.	Marginal effect	t-stat.
Firm characteristics	Age				
	Workforce				
	Companies				
Ownership	Log(Assets managed)	1,84e-02	3,23***	1,98e-02	2,86***
	PE firm	1,40e-01	1,78*		
	Partners	1,27e-01	1,69*		
	Bank	1,02e-01	1,3		
	Insurance company	6,09e-02	0,72		
	Industry	1,44e-01	1,71*		
	French state	1,44e-01	1,79*		
Limited Partners	LP Industry				
	LP Captive				
	LP Sovereign				
	LP Individuals				
	LP Institutional				
	LP Pension funds				
	LP Family offices				
Activity	Venture Capital			4,73e-03	0,23
	Transmission			-1,05e-02	-0,46
	Growth			9,89e-03	0,5
	Funds of funds			9,74e-03	0,29
	Mezzanine			6,01e-03	0,17
Investment scope	Minority				
	Regional scope			-9,57e-03	-0,26
	European scope			-1,03e-02	-0,4
	International scope			-3,67e-02	-2,09**
	Sector				
	Founder				
Management	Engineer				
	Business school				
	International				
Responsible investment practices	AFIC Chart	5,11e-02	2,05**	5,39e-02	2,11**
	Green or Social fund	-1,44e-03	-0,05	-1,76e-02	-0,68
	Communication	1,56e-01	3,69***	1,97e-01	4,10***
	Interest				
Nb. of obs.		257		281	
Nb of obs. where =1		24		26	
Pseudo R2		30.89		31.18	
Loglikehood function		-55.11		-59.63	
LR-Chi-2 statistics (L)		49.27***		54.03***	

NOTE. Table 2 presents results obtained by fitting maximum-likelihood probit models and reports marginal effects (change in the probability for an infinitesimal change in each continuous variable; discrete change in the probability for dummy variables). Pseudo R2 is calculated by McFadden's formula, which is: Pseudo R2= 1 – log L / log (LR). The LR-Chi2 statistics provides a test of the model robustness by indicating that the model as a whole fits significantly better than a model with no predictors.

Table 5 Multivariant analysis (Probit) on Green or Social funds management drivers

		model 1		model 2		model 3		model 4	
		Marginal effect	t-stat.	Marginal effect	t-stat.	Marginal effect	t-stat.	Marginal effect	t-stat.
	Age	5,11e-08	1,92*	4,41e-11	1,71*				
Firm characteristics	Workforce			-6,53e-11	-1,65*				
Ownership	Log(Assets managed)	-2,19e-07	-1,11			-1,91e-02	-2,12**	-9,13e-03	-1,12
	PE firm	-3,40e-07	-0,20	-2,07e-09	-1,47	-7,60e-04	-0,01		
	Partners	-3,10e-08	-0,04			-2,51e-02	-0,31		
	Bank	9,63e-07	0,93			1,14e-02	0,13		
	Industry	4,12e-06	1,90*			7,94e-02	0,78		
	French state	-3,26e-06	-1,76*			6,60e-02	0,70		
Limited Partners	LP Industry			6,70e-07	1,22				
	LP Captive			1,13e-11	0,02				
	LP Sovereign			3,32e-10	0,42				
	LP Individuals	-1,69e-07	-0,34	1,47e-05	1,55				
	LP Institutional	5,99e-07	1,66*	6,69e-10	1,46				
	LP Pension funds	4,86e-04	1,83*	1,64e-07	1,46				
	LP Family offices	-1,52e-07	-0,24	1,60e-09	0,52				
Activity	Venture Capital	3,24e-05	1,99**	1,56e-06	1,72*			5,55e-02	1,99**
	Transmission	-7,88e-03	-2,16***	-1,80e-04	-1,72*			-7,36e-02	-2,35**
	Growth	7,63e-05	2,08**	1,49e-05	1,46			7,66e-02	2,68***
	Funds of funds	4,04e-03	1,56	3,18e-05	1,34			1,85e-02	0,38
Investment scope	Minority	-1,37e-04	-1,40	-2,75e-09	-0,62				
	Regional scope	-3,49e-07	-0,71	-1,06e-09	-0,96			3,87e-02	0,84
	European scope	-4,87e-05	-1,37	-1,09e-07	-1,09			-1,63e-03	-0,05
	International scope	-1,85e-07	-0,45	-1,17e-10	-0,55			2,21e-02	0,64
	Founder			-5,30e-09	-1				
Management	Engineer	9,95e-05	1,59	1,03e-07	1,44				
	Business school	6,58e-09	0,01	-1,65e-10	-0,28				
	International	2,05e-04	1,38	1,32e-06	1,70*				
Responsible investment practices	AFIC Chart	-3,53e-07	-0,26	-7,03e-06	-1,36	6,45e-02	1,77*	2,82e-02	0,97
	UNPRI	4,48e-08	0,05	5,10e-06	1,14	-3,57e-02	-0,80	-2,85e-02	-0,82
	Communication	2,09e-02	2,18**	1,36e-03	2,00**	3,95e-01	5,16***	3,40e-01	5,40***
	Interest	1,35e-05	1,27	2,27e-07	1,5				
Nb. of obs.		174		167		257		281	
Nb of obs. where =1		14		14		27		30	
Pseudo R2		65.03		65.97		24.25		32.56	
Loglikehood function		-17.03		-16.37		-65.43		-64.38	
LR - Chi-2 statistics		63.34***		63.47***		41.88***		62.15***	

Table 6 Multivariant analysis (Probit) on CSR communication drivers

		model 1		model 2		model 3		model 4	
		Marginal effect	t-stat.	Marginal effect	t-stat.	Marginal effect	t-stat.	Marginal effect	t-stat.
	Age	-6,38e-4	-0,31	2,19e-4	0,13				
Firm characteristics	Workforce			1,31e-3	1,06				
Ownership	Log(Assets managed)	3,92e-3	0,18			3,53e-2	2,99***	2,65e-2	1,99**
	PE firm	-3,31e-1	-2,21**	-1,04e-1	-1,23	-2,49e-1	-2,34**		
	Partners	-1,91e-1	-1,49			-1,78e-1	-1,95*		
	Bank	-3,23e-1	-2,16**			-2,82e-1	-2,58***		
	Industry	-7,42e-3	-0,03*			-8,05e-2	-0,6		
	French state	-3,00e-1	-1,78			-2,07e-1	-1,57		
Limited Partners	LP Industry			-1,49e-3	-0,02				
	LP Captive			1,74e-2	0,28				
	LP Sovereign			4,23e-2	0,6				
	LP Individuals	1,35e-1	1,70*	9,22e-2	1,36				
	LP Institutional	-9,51e-2	-1,14	-9,25e-2	-1,31				
	LP Pension funds	-3,45e-2	-0,55	-2,33e-2	-0,42				
	LP Family offices	-8,54e-2	-1,41	-1,08e-1	-1,96**				
Activity	Venture Capital	2,95e-2	0,42	-2,52e-2	-0,37			7,73e-3	0,17
	Transmission	5,44e-2	0,72	5,96e-2	0,9			1,55e-2	0,35
	Growth	-6,15e-2	-0,88	-8,54e-2	-1,28			-1,89e-2	-0,45
	Mezzanine	-8,07e-2	-0,92	-5,88e-2	-0,76			-6,80e-2	-1
	Funds of funds	-4,55e-2	-0,44	-3,23e-2	-0,37			-3,41e-2	-0,56
Investment scope	Minority	-4,85e-2	-0,52	-5,77e-2	-0,72				
	Regional scope	1,42e-1	0,97	6,78e-3	0,06			-1,18e-2	-0,15
	European scope	1,95e-1	2,53**	1,70e-1	2,53**			6,75e-2	1,25
	International scope	8,82e-2	1,13	8,92e-2	1,23			5,30e-2	1
	Founder			8,25e-2	1,32				
Management	Engineer	8,68e-2	1,25	9,57e-2	1,53				
	Business school	-2,12e-2	-0,36	1,83e-2	0,34				
	International	8,04e-2	1,06	7,51e-2	1,1				
Responsible investment practices	AFIC Chart	3,31e-4	0,00	4,23e-2	0,75	6,94e-3	0,14	1,12e-2	0,24
	UNPRI	3,17e-1	2,54**	2,10e-1	1,99**	2,88e-1	2,96***	3,15e-1	3,38***
	Green or social funds	6,48e-1	3,54***	7,02e-1	4,04***	5,17e-1	5,36***	5,19e-1	5,48***
	Interest	4,18e-2	0,61	4,63e-2	0,72	4,04e-2	0,77	6,45e-2	1,25
Nb. of obs.		174		167		257		281	
Nb of obs. where =1		36		35		43		48	
Pseudo R2		45.34		46.16		33.62		33.51	
Loglikehood function		-48.49		-46.16		-77.06		-85.42	
LR - Chi-2 statistics		80.44***		79.16***		78.03***		86.10***	

5. DISCUSSION

Our empirical results support that responsible investment in French Private Equity is a mainstream movement which got quickly structured under the impetus of large conventional actors, both in terms of human capital and assets managed. This movement in fact appears characterized by a mix of both ESG screening and shareholders activism, with Private Equity investors typically being much involved in the porfolio company's management. Responsible investing seems essentially strategically driven, Private Equity investors hereby aiming at creating value, improving risk management and differentiating to raise funds, especially independent firms. SRI as implemented by those investors therefore appears in line with shareholders' value maximization and consistent with a business improvement.

Let us note that shareholders activism on ESG issues quite differs between Private Equity investors and Public investors. Indeed, Sparkes (2008) defines shareholder activism as *'the use of the voting rights attached to ordinary shares to influence company management*'. Since they usually are majority or significant shareholders, Private Equity investors have considerable influence as active investors.

Moreover, engagement in the specific context of Private Equity is to be distinguished from conventional ethical activism, such as undertook by religious institutional investors in the United States through the Interfaith Center on Corporate Responsibility (Williams, 2005). According to Smith (1996), engagement acts as an implicit threat to the company that if the investor's concerns are not addressed, an exclusionary strategy may be adopted. Sparkes (1998) hence have argued that shareholder activism differs from SRI as advocacy is characterized by a single-issue focus, no financial concerns, and the seeking of confrontation and publicity; whereas SRI is characterized by multi-issue concern, strong financial interest, the seeking of engagement and the avoidance of publicity. However, Private Equity investors are active investors who promote ESG issues on strategic grounds rather than ethical ones.

Hereby their engagement does not fit to Sparkes's definition as they target promoting CSR in order to maximize shareholders' value. A possible explanation of this difference might lie in the specificity of the French context, whereby SRI mainstreaming has been taking place under the explicit goal of penetration of ESG criteria into conventional funds, thereby maybe creating a sort of 'ESG externality' on the Responsible Private Equity market.

Finally, this paper's findings on Private Equity investors suggest that those who care for ESG issues might have a stronger impact as active investors than Public investors. Indeed, results are that 23% of respondents brought ESG issues to company's supervisory board, 53% directly monitored those issues and 26% visited plants. Compared to such figures, shareholder advocacy is still in practice limited on public markets. For instance, Lewis and Mackenzie (2000) found little support of hard engagement in their large survey of UK ethical public investors, passive signaling (screening) being most favored. In the United States, Lydenberg (2002) argues that the "Wall Street Rule" generally applies, that is shareholders are expected to regulate managers by selling shares rather than by trying to change management practices through engagement. Indeed, SRI funds which used both screening and advocacy accounted in 2003 for about a fifth of all SRI funds (Social Investment Forum 2003). In Europe, Eurosif (2010 European SRI Survey) estimated €1.5 trillion assets managed were impacted by SRI engagement, representing about 28% of all broad SRI approaches in Europe.

Here we find that conventional Private Equity funds which care for ESG issues appear active at an equivalent level on the French market. Hereby findings hint that this financial industry might have the potential to become a powerful tool to promote sustainable practices in portfolio companies. However, to realize this potentiality, Private Equity firms need to develop a sound expertise of ESG issues and to acquire the corresponding human capital. Considering the current difficulties of the industry related to the financial crisis and liquidity dearth, it seems unlikely that Private Equity firms will currently invest in such competencies.

Would that turn out so, the development of an effective and reliable responsible investment movement beyond its current frontiers might be compromised.

6. CONCLUSION

Whereas most SRI literature has focused on public markets, this paper highlights that French Private Equity investors recently seized ESG issues and are developing a mainstream responsible investing approach structurally based on engagement. As significant shareholders, Private Equity investors have the potential to actively promote sustainable practices in the firms they own. Findings support that such activism is strategically grounded, as managing portfolio ESG issues might enhance value creation, enlarge risk management and enable Private Equity firms to differentiate to raise funds. Considering the specificities of the studied market, a promising research path would be to explore whether this responsible investing movement is restricted to France or whether drivers and maturation differ between Private Equity markets.

At a time of financial crisis and regulation stringency for Private Equity, responsible investment hence appears to have been "thought global" by large leading actors to improve the mainstream business and provide it with new growth tools. However, most Private Equity companies currently seem to lack the human capital and expertise essential for successfully implementing a profitable ESG issues management. With financial markets still in the crisis turmoil and the upcoming of tougher regulatory standard on bank capital adequacy (Basel III), the European Private Equity industry environment will quickly evolve in the next few months. The question of how the new Private Equity responsible investing movement will react to this shifting context, and potential consequences for firm managers' access to capital, henceforth still lay wide open.

APPENDICES

Survey wording

« ESG Practices of Private Equity Investors – Survey 2011 » (Novethic)

ESG Policy at the Management Firm Level

1) Have you formalized a policy or a chart stating how you take into account Environmental, Social and Governance (ESG) criteria in your portfolio and/or your investments?

Yes; Please detail since when / No, but we plan to do so this year (directly go to question 5) / No (directly go to question 5)

2) If you answered yes to question 1, to whom do you communicate it?

Our co-workers / Our investors / Our portfolio companies / Publicly communicated

3) Are you a signatory of the French Private Equity Association Chart?

Yes / No; why?

4) Are you a signatory of the United Nations Principles for Responsible Investments (PRI)?

Yes; Please detail since when / No, but we plan to do so this year / No.

5) Are your co-workers trained in ESG issues management in their daily business?

Yes; Please detail how / No.

6) Your ESG policy is run by :

A co-worker dedicated to this policy / A co-worker non dedicated to this policy / Investment directors / An external third-party / Other, please detail.

7) Within your management firm, which policies have you launched in terms of sustainable development?

ESG evaluation at the management firm level
Environment: Management firm carbon footprint evaluation / Videoconferences / Energy savings thanks to eco-gestures
Social: employee training / annual job appraisal / employee profit-sharing
Governance: Ethics Chart or Deontology Code
Other: please detail

Implementation in portfolio companies

8) Do you exclude from your investments:

Specific industries: Weapons / Alcohol / Tobacco / Pornography / Hazard games / GMOs / Nuclear Energy / Other, please detail
Specific policies considered reprehensible: Child labor / Forced labor / Other, please specify

9) Which means do you use to evaluate ESG practices in companies (before investment; over the investment phase; while the company is hold in your portfolio)?

Dialogue between the management firm and the portfolio company / ESG survey sent to the company / Management firm internal ESG audit grid / Acquisition dues diligences / Specific acquisition dues diligences / Audit by an external third-party / Other, please detail.

10) In this context, are environmental issues (water and energy consumptions, carbon assessment, waste management, etc.) evaluated:

	Always	Sometimes *	Never	No, but we plan to do so this year*
When you acquire a company				
When you hold a company in portfolio				
When you sell a company				

Please detail how many companies were evaluated in 2010.

1) In this context, are social issues (training, skill management, diversity, non discrimination, etc.) evaluated:

	Always	Sometimes *	Never	No, but we plan to do so this year*
When you acquire a company				
When you hold a company in portfolio				
When you sell a company				

Please detail how many companies were evaluated in 2010.

1) In this context, are governance issues (allocation and delegation of authority, board formation, board independence, fight against corruption, etc.) evaluated:

	Always	Sometimes *	Never	No, but we plan to do so this year*
When you acquire a company				
When you hold a company in portfolio				
When you sell a company				

Please detail how many companies were evaluated in 2010.

2) How do you support your portfolio companies to implement their sustainable development policy?

Regular dialogue between the management firm and a dedicated contact in the portfolio company / Link establishment with a specialized consultant / Support of the ESG reporting / Follow-up, but the portfolio company has full autonomy to implement the policy / Other, please detail.

3) How do you ensure ESG criteria are taken into account in the companies in which you invest?

Chart compliance request / ESG reporting request / ESG issues on the agenda of the company's supervisory board / Visit of plants / ESG clause in the shareholders pact / Other; please detail.

4) Have you ever measured the impact of the ESG issue management on your portfolio?

Yes; please detail / No.

5) The ESG evaluation of a company already led you to :

Decrease a target company valuation / Reject an investment / The company ESG evaluation had no impact on our management / Other; please detail.

Relationships with investors

6) Have you implemented a regular ESG reporting of your portfolio?

Yes, it is public / Yes, it is communicated to our investors / No / No, but we plan to do so this year.

7) Do your Limited Partners ask you how you manage ESG issues?

Yes, often / Yes, sometimes / No, never.

8) If you answered yes to question 7, how have your Limited Partners formalized their request (survey, side letters, shareholders pact, etc.)?

Motivations

9) For which reasons do you take into account ESG issues in your investments?

To improve risk management (social litigations, environmental liability, etc.) / To answer our investors' demand / To ease fund raising / To improve deal flow / To reduce the management firm reputational risk / to improve the value of portfolio companies / other, please detail.

Table A - Correlation Matrix (1/3)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)
1-Firm Age	1,00																									
2-Workforce	0,11	1,00																								
3-Funds	-0,02	0,44	1,00																							
4-Companies	0,16	0,48	0,64	1,00																						
5-Assets managed	0,14	0,36	0,21	0,32	1,00																					
6-Listed	0,18	0,03	-0,09	-0,06	0,11	1,00																				
7-PE firm	0,00	0,02	0,01	-0,08	-0,01	-0,03	1,00																			
8-Partners	-0,13	-0,15	-0,06	-0,26	0,06	-0,12	-0,40	1,00																		
9-Bank	0,08	0,18	0,18	0,34	-0,08	-0,08	-0,23	-0,44	1,00																	
10-Insurance	0,05	0,07	0,09	0,27	0,20	-0,03	-0,09	-0,19	-0,06	1,00																
11-Industry	-0,01	-0,06	-0,07	-0,01	-0,07	-0,04	-0,12	-0,21	-0,07	-0,03	1,00															
12-French state	-0,03	-0,01	-0,05	0,02	-0,08	-0,03	-0,15	-0,34	-0,03	-0,01	-0,02	1,00														
13-Other	0,06	-0,04	-0,10	-0,07	-0,02	0,04	-0,09	-0,15	-0,07	-0,01	-0,04	0,00	1,00													
14-LP Industry	-0,05	-0,08	-0,09	-0,04	-0,13	-0,08	-0,05	-0,11	-0,08	-0,06	0,50	0,10	-0,08	1,00												
15-LP Captive	-0,01	0,07	0,12	0,20	0,01	0,07	0,17	-0,33	0,44	0,14	-0,14	-0,20	-0,03	-0,16	1,00											
16-LP Sovereign	-0,09	0,02	-0,03	0,14	-0,10	-0,05	-0,11	-0,17	0,00	0,05	-0,07	0,54	-0,03	0,28	-0,12	1,00										
17-LP Individuals	-0,08	0,20	0,48	0,27	0,12	0,01	0,04	0,06	0,06	-0,03	-0,06	-0,20	0,01	-0,12	0,03	-0,02	1,00									
18-LP Institutional	-0,01	0,03	0,02	-0,12	0,08	-0,05	-0,01	0,39	-0,37	-0,05	-0,14	-0,03	-0,05	0,04	-0,35	0,17	0,04	1,00								
19-LP Pension funds	0,08	0,20	-0,03	0,06	0,32	0,07	0,06	0,18	-0,18	0,05	-0,12	-0,10	-0,01	-0,06	-0,20	-0,03	-0,04	0,31	1,00							
20-LP Family offices	0,04	0,00	-0,08	-0,08	-0,10	0,04	-0,07	0,14	-0,15	-0,03	-0,04	0,02	0,06	0,10	-0,23	0,18	-0,08	0,24	0,08	1,00						
21-VC	-0,03	0,07	0,30	0,19	-0,09	-0,04	0,00	-0,15	0,03	-0,09	0,04	0,25	0,05	0,19	-0,03	0,32	0,23	-0,07	-0,13	-0,05	1,00					
22-Transmission	0,15	0,12	-0,02	0,09	0,16	0,09	-0,07	0,01	0,02	0,08	0,01	-0,06	0,05	-0,04	-0,06	-0,14	-0,01	0,10	0,16	-0,01	-0,26	1,00				
23-Growth	0,00	0,08	0,12	0,20	-0,13	-0,05	-0,03	-0,09	0,22	-0,02	-0,02	-0,02	-0,02	0,04	0,06	0,11	0,17	-0,07	-0,12	-0,07	0,00	0,22	1,00			
24-Mezzanine	0,01	0,16	0,02	0,14	0,12	0,03	0,04	-0,10	-0,04	0,19	0,09	-0,03	-0,02	-0,03	0,10	-0,06	-0,10	-0,03	-0,07	0,04	-0,14	0,01	-0,03	1,00		
25-Distressed Capital	-0,02	0,11	-0,09	-0,11	0,03	-0,01	0,04	0,09	-0,10	0,00	-0,07	-0,03	-0,04	-0,09	-0,02	-0,03	-0,08	0,09	0,06	-0,05	-0,14	0,08	0,01	-0,03	1,00	
26-Funds of funds	-0,08	0,28	0,28	0,20	0,01	-0,06	0,09	-0,08	0,07	0,13	-0,08	-0,04	-0,07	-0,13	0,10	-0,09	0,07	-0,10	0,06	-0,06	-0,01	-0,12	-0,10	0,09	0,00	1,00

Table A (continues) - Correlation Matrix (2/3)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)
27-Minority	0,05	0,06	0,17	0,25	-0,25	-0,07	0,02	-0,23	0,24	0,08	-0,02	0,12	-0,10	0,08	0,12	0,32	0,17	-0,11	-0,14	-0,02	0,37	-0,30	0,36	0,09	-0,28	0,12
28-Regional	0,05	-0,09	-0,08	0,06	-0,13	-0,07	-0,09	-0,28	0,21	-0,01	0,01	0,39	-0,01	0,11	0,01	0,33	-0,01	0,02	-0,22	-0,02	0,16	0,07	0,16	-0,07	-0,06	-0,10
29-European	-0,01	0,15	0,15	0,01	0,23	0,11	0,01	0,19	-0,16	0,04	-0,02	-0,16	-0,03	-0,07	-0,09	-0,18	-0,10	0,03	0,31	0,02	-0,06	-0,10	-0,19	0,08	-0,01	0,21
30-International	0,01	0,23	0,13	0,17	0,25	0,23	-0,03	0,01	-0,01	0,10	0,02	-0,09	-0,08	0,02	0,03	-0,06	0,00	0,03	0,18	-0,03	0,12	-0,04	0,04	0,10	0,04	0,17
31-Sector	-0,12	-0,09	0,06	-0,13	-0,07	-0,08	0,04	0,06	-0,11	-0,05	0,11	-0,01	-0,03	0,16	-0,07	0,04	-0,01	0,08	0,02	-0,03	0,26	-0,33	-0,08	-0,10	-0,04	-0,01
32-Gender	-0,09	-0,02	0,00	0,14	0,14	0,12	-0,10	-0,07	-0,05	0,14	0,15	0,09	0,00	0,08	0,04	0,14	0,01	-0,06	-0,04	-0,04	0,06	-0,02	-0,03	0,06	-0,07	0,01
33-Founder	-0,17	-0,06	-0,06	-0,11	-0,09	-0,10	-0,13	0,51	-0,32	-0,02	-0,08	-0,26	-0,04	-0,03	-0,22	-0,04	0,12	0,24	0,05	0,08	-0,03	-0,08	0,01	-0,01	0,12	-0,06
34-Engineer	0,03	-0,03	0,01	0,10	0,11	-0,02	-0,06	-0,04	0,03	0,06	-0,07	0,17	0,02	-0,08	0,00	0,14	-0,01	0,00	0,09	-0,02	-0,02	-0,09	-0,01	0,03	-0,04	-0,08
35-Business school	-0,08	-0,06	0,06	0,00	-0,13	0,07	0,02	-0,01	-0,01	-0,02	0,20	-0,14	-0,11	0,13	0,12	-0,04	0,19	-0,09	-0,12	0,10	0,00	-0,06	0,08	0,04	-0,11	0,06
36-mgt International	-0,07	0,10	0,02	-0,10	0,06	0,06	0,04	0,06	-0,07	-0,09	0,05	-0,11	-0,02	-0,05	-0,08	-0,14	-0,11	0,07	0,10	-0,07	-0,06	0,10	-0,07	0,01	0,10	0,00
37- mgt Other	0,04	-0,06	-0,02	-0,02	-0,01	-0,08	-0,02	-0,01	0,05	-0,03	-0,08	0,05	0,06	0,07	-0,09	0,04	0,00	0,02	-0,09	0,06	0,11	-0,12	-0,09	-0,12	-0,05	-0,03
38-UNPRI	0,06	0,13	0,18	0,13	0,19	-0,01	0,02	0,08	-0,06	0,04	-0,05	-0,04	-0,07	-0,07	0,08	-0,06	0,11	0,13	0,16	-0,05	-0,05	0,04	-0,05	-0,01	-0,10	0,06
39-AFIC Chart	-0,04	-0,03	0,10	0,05	-0,01	0,05	0,02	0,20	-0,08	0,04	-0,04	-0,34	0,00	-0,06	0,17	-0,19	0,16	-0,02	0,01	-0,06	-0,10	0,01	0,04	0,01	0,01	0,01
40-Green or Social fund	-0,10	-0,03	0,10	-0,01	-0,07	-0,07	-0,05	-0,05	-0,03	-0,02	0,10	0,07	0,12	0,08	0,06	0,09	0,10	-0,04	-0,10	-0,11	0,21	-0,20	0,15	-0,11	0,00	-0,02
41-Communication	0,02	0,12	0,12	0,04	0,26	0,04	-0,06	0,07	-0,12	0,11	-0,02	-0,04	0,12	-0,02	0,05	-0,05	0,12	0,04	0,11	-0,15	0,02	-0,01	-0,02	-0,06	-0,11	0,05
42-Interest	0,03	0,12	0,15	0,10	0,10	-0,04	-0,01	0,00	-0,09	0,04	0,06	0,06	0,09	0,07	0,05	-0,01	0,00	0,16	0,09	-0,01	-0,02	0,08	0,01	0,05	-0,03	0,02

Table A (continues) - Correlation Matrix (3/3)

	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)	(41)	(42)
27-Minority	1,00															
28-Regional	0,24	1,00														
29-European	-0,17	-0,46	1,00													
30-International	0,07	-0,21	0,36	1,00												
31-Sector	0,03	-0,16	0,18	0,08	1,00											
32-Gender	0,06	-0,02	-0,01	0,03	-0,07	1,00										
33-Founder	-0,03	-0,17	0,05	0,00	0,12	0,01	1,00									
34-Engineer	-0,04	-0,15	0,11	0,03	0,16	-0,08	-0,12	1,00								
35-Business school	0,08	-0,03	-0,05	-0,05	-0,03	0,08	-0,06	-0,27	1,00							
36-mgt International	-0,15	-0,09	0,14	0,16	-0,01	0,09	0,09	-0,14	-0,17	1,00						
37- mgt Other	0,09	0,12	-0,09	0,05	0,07	-0,01	-0,05	-0,09	-0,31	-0,30	1,00					
38-UNPRI	0,00	-0,09	0,12	-0,02	0,00	0,08	0,02	0,01	-0,10	0,02	-0,02	1,00				
39-AFIC Chart	-0,14	-0,25	0,16	0,12	0,02	-0,08	0,14	0,01	0,08	-0,01	-0,03	0,17	1,00			
40-Green or Social fund	0,10	0,07	-0,07	0,06	0,34	0,06	0,02	0,05	-0,03	0,03	0,15	0,06	0,03	1,00		
41-Communication	-0,10	-0,12	0,18	0,16	0,14	0,06	0,06	0,15	-0,16	0,06	0,05	0,37	0,11	0,41	1,00	
42-Interest	-0,12	-0,05	0,04	-0,07	0,02	-0,02	-0,05	0,02	0,04	-0,18	0,05	0,38	0,11	0,20	0,29	1,00

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